ABSTRACT

An object of the present invention is to precisely and stably detect a motion in an monitoring image, excluding effects of an illumination change and flicker. The frame division means divides an inputted X-th image frame F (X) into a plurality of blocks B(X)ij. Representative (e.g, average) luminance values BLrep (X)ij of block B (X) ij, a representative luminance value FLrep (X) of F (X), block luminance differences ΔBLrep (X)ij between the frame F (X) and a frame prior to F (X) and a frame luminance difference ΔFLrep (X) between the present frame F (X) and a frame prior to F (X) are calculated. Then, a certain block is determined to include a motion, if $|\ \Delta$BLrep (X)ij - ΔFLrep (X) $|$ for that certain block is greater than a prescribed threshold. The threshold may be adaptively changed in accordance with the luminance state.